Long Creek Watershed Tour 2005

Supplemental Handouts Containing Photographs, Maps, and Data Related to the Conditions of the Stream

PART 2

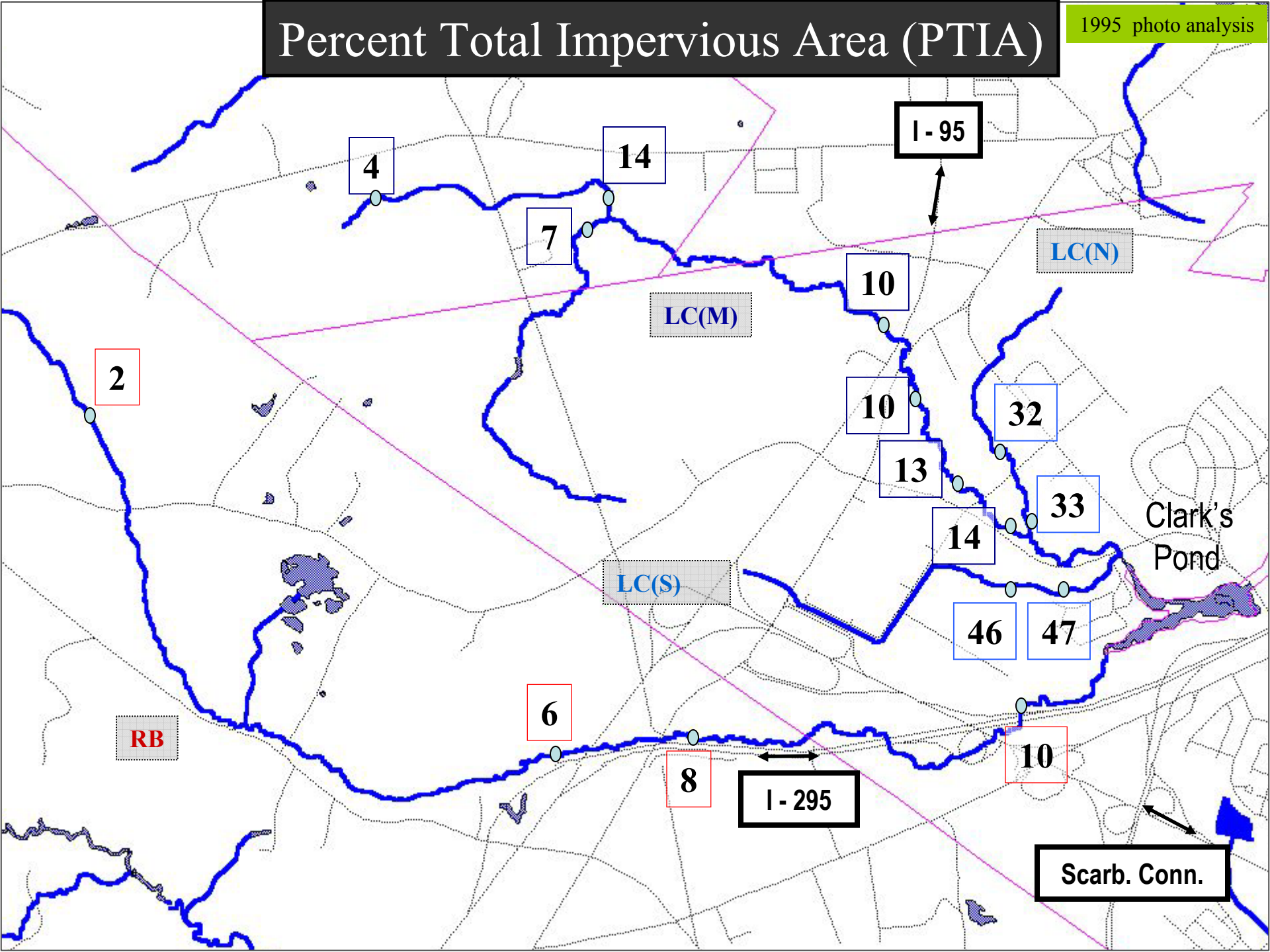
DATA

a brief overview of selected parameters from:

Varricchione, J. T. 2002. A Biological, Physical, and Chemical Assessment of Two Urban Streams in Southern Maine: Long Creek and Red Brook. DEPLW0572. Volume I: Text, Figure, and Tables; Volume II: Appendices. Portland, ME. < www.state.me.us/dep/blwq/docmonitoring/stream/index.htm >)

Percent Total Impervious Area (PTIA)

1995 photo analysis



Sensitive Macroinvertebrate (mayfly, stonefly, caddisfly) Diversity)

EPT Richness

I - 95

7

8

LC(M)

LC(N)

15

7

6

6

Clark's Pond

LC(S)

6

RB

9

I - 295

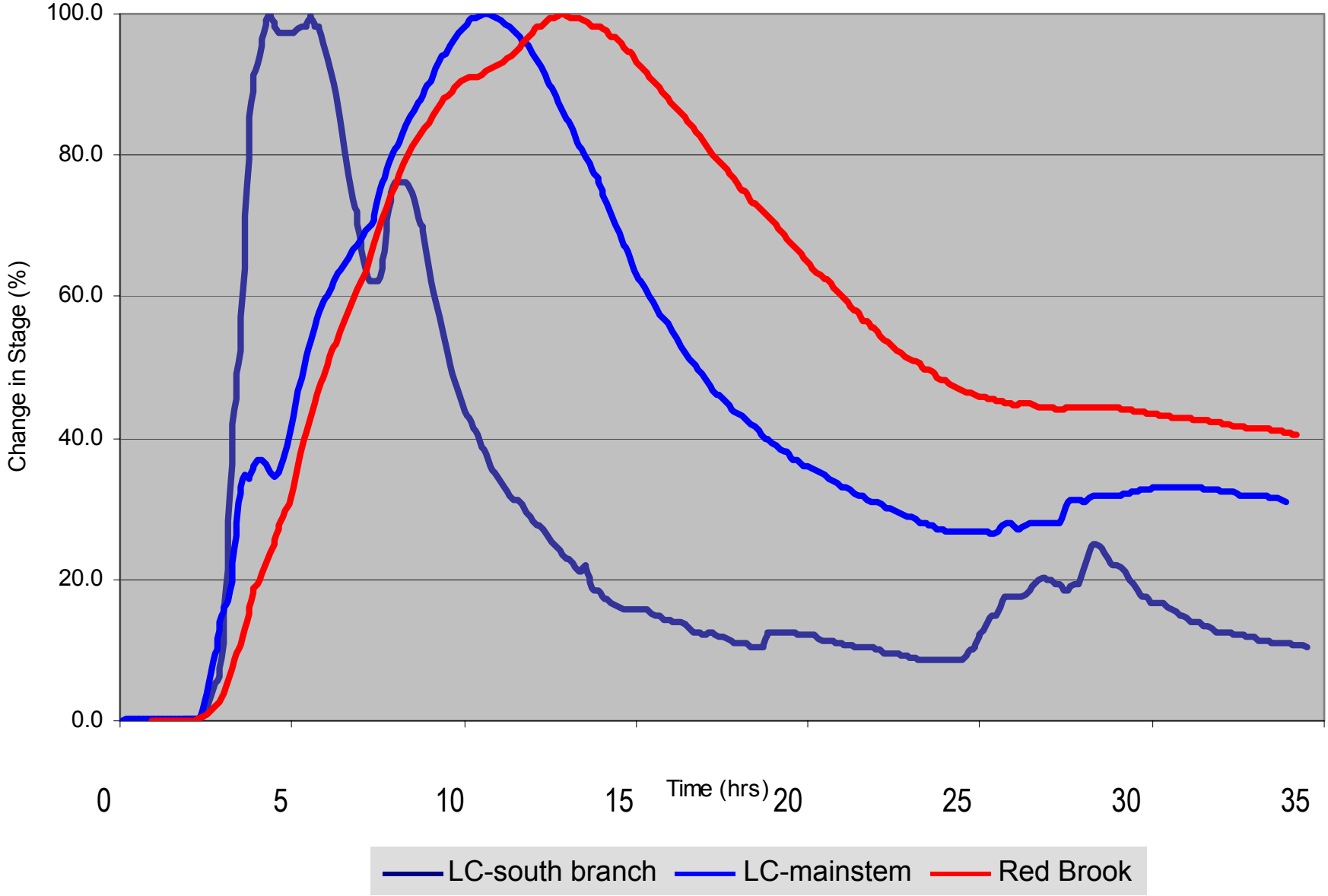
9

Scarb. Conn.

Brook Trout Abundance

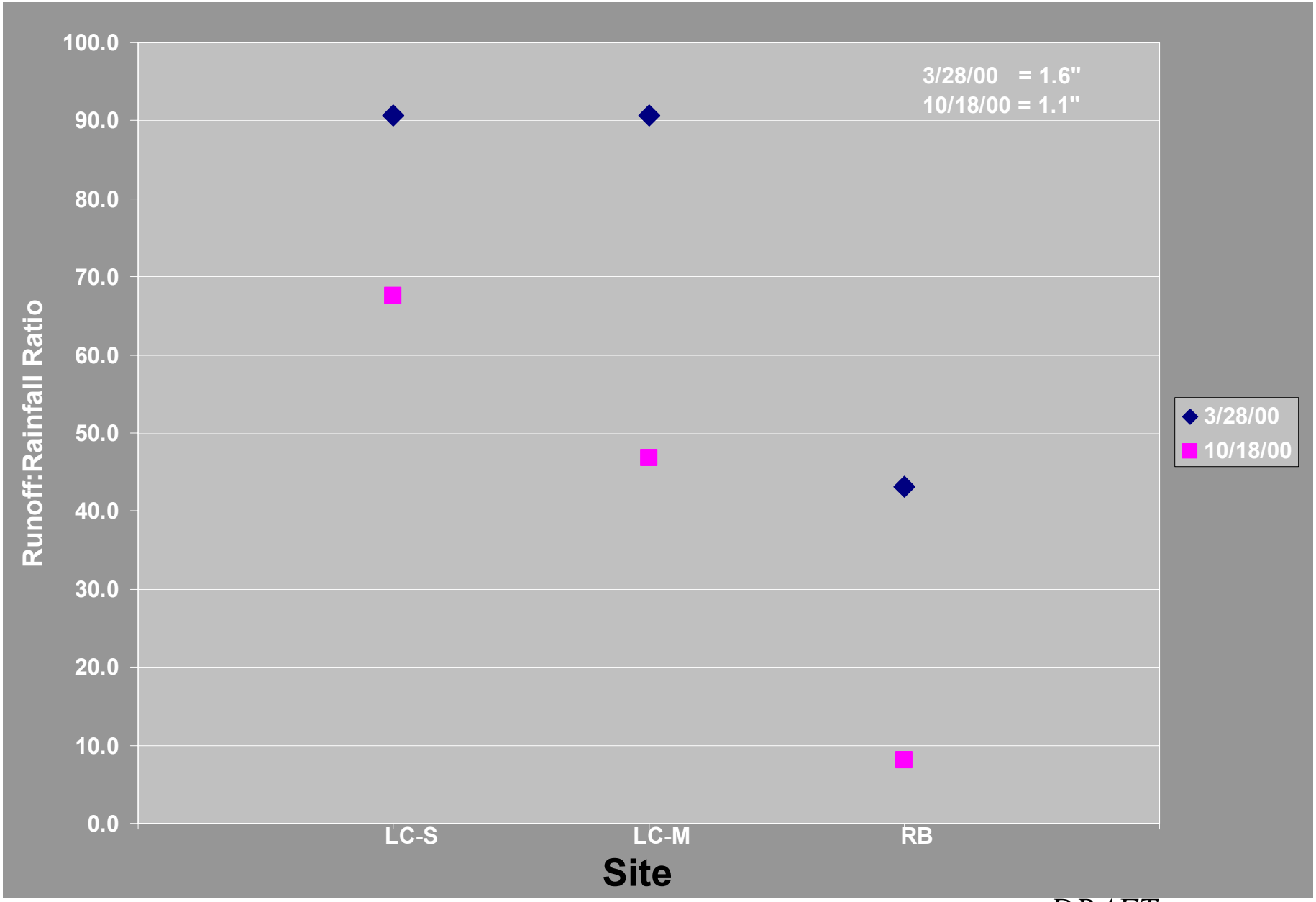
(200 m study reaches)

Long Creek & Red Brook Discharge 3/28/00 - 3/29/00

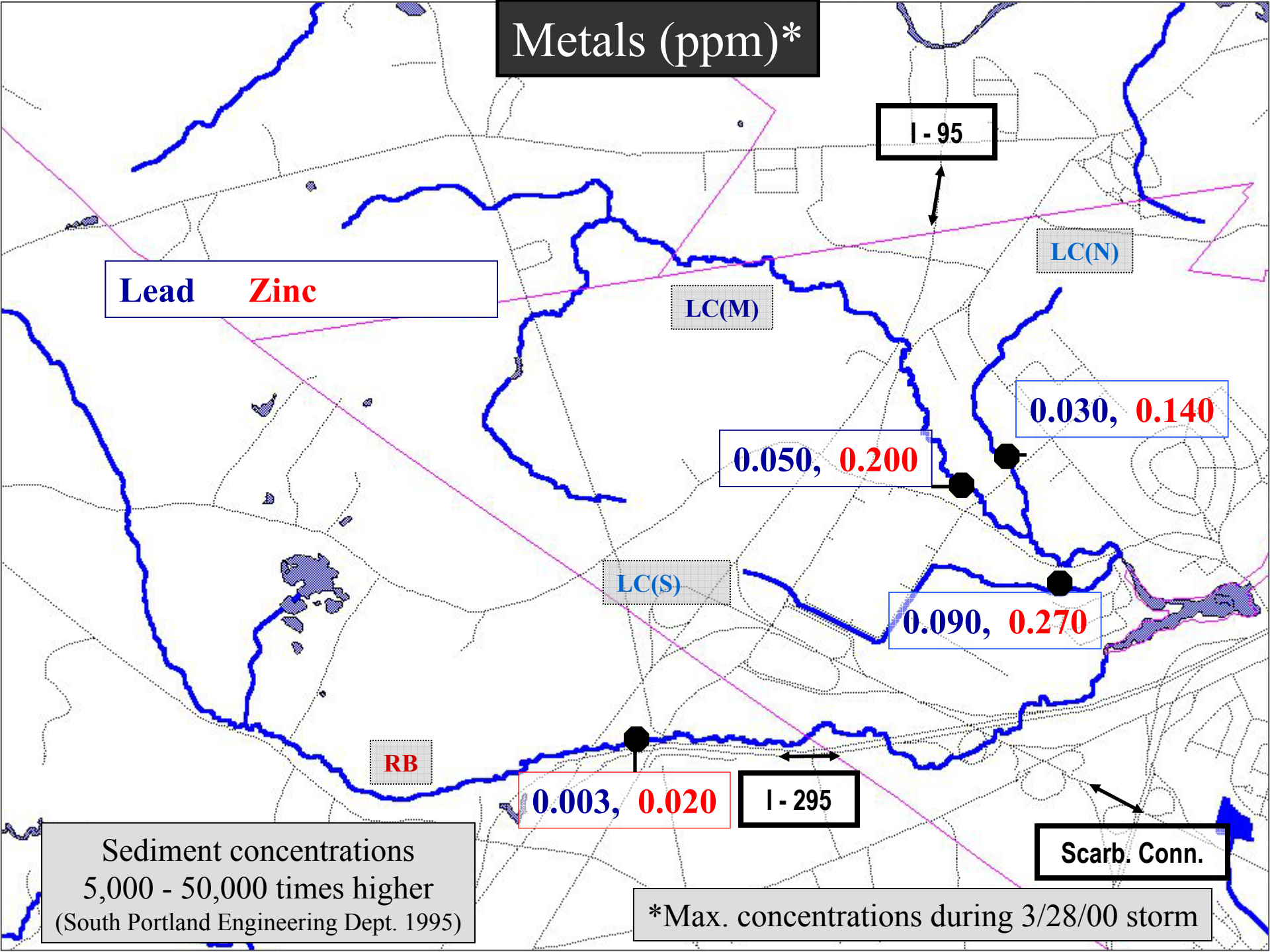


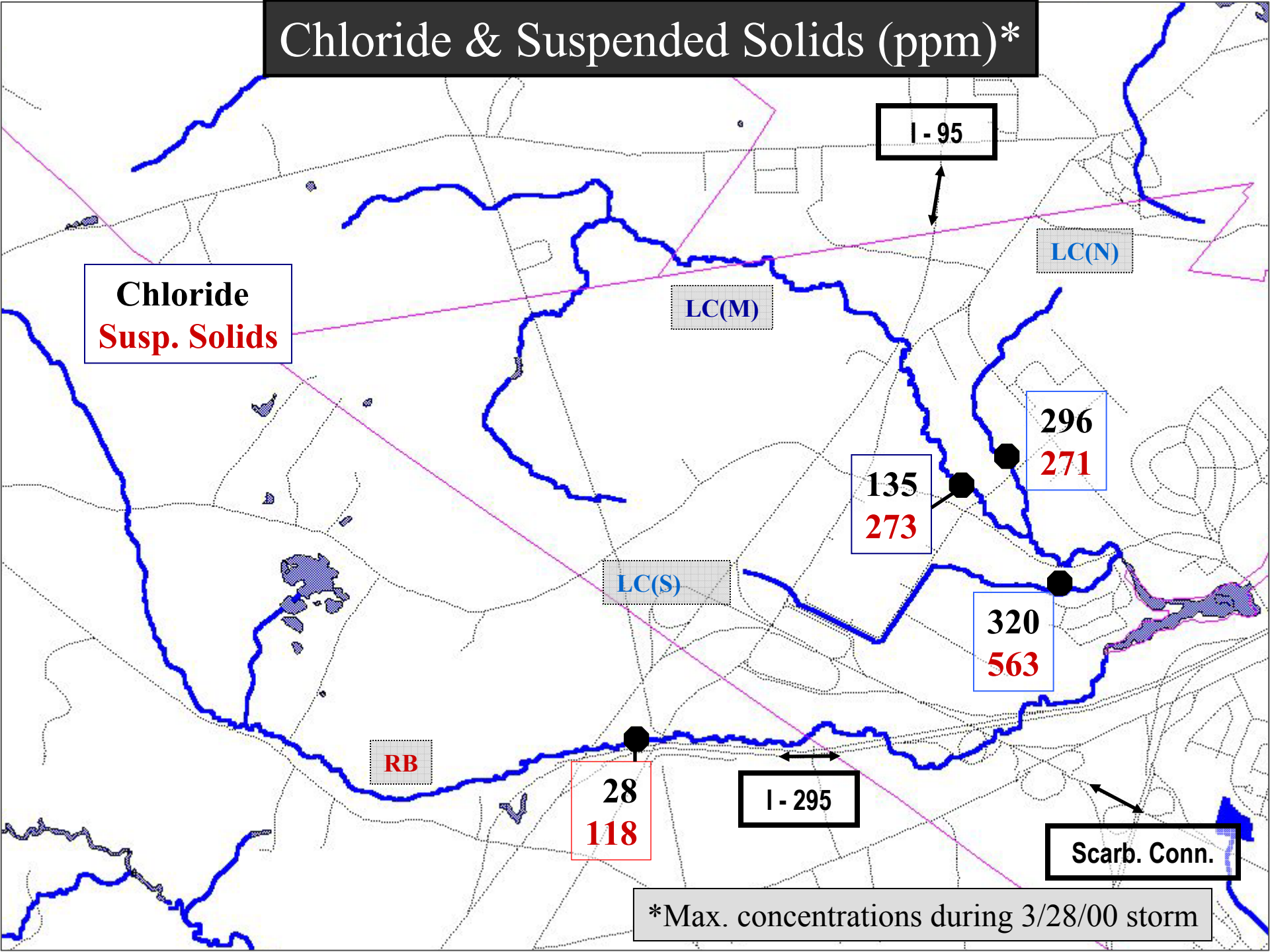
Percent Total Impervious Area =	**47%**	**13%**	**8%**

Runoff:Rainfall Ratio



-DRAFT-


Metals (ppm)*
I - 95
LC(N)
Lead Zinc
LC(M)
0.030, 0.140
0.050, 0.200
LC(S)
0.090, 0.270
RB
0.003, 0.020
I - 295
Scarb. Conn.
Sediment concentrations
5,000 - 50,000 times higher
(South Portland Engineering Dept. 1995)
*Max. concentrations during 3/28/00 storm


Chloride & Suspended Solids (ppm)*
I - 95
LC(N)
LC(M)
Chloride
Susp. Solids
296
271
135
273
LC(S)
320
563
RB
28
118
I - 295
Scarb. Conn.
*Max. concentrations during 3/28/00 storm

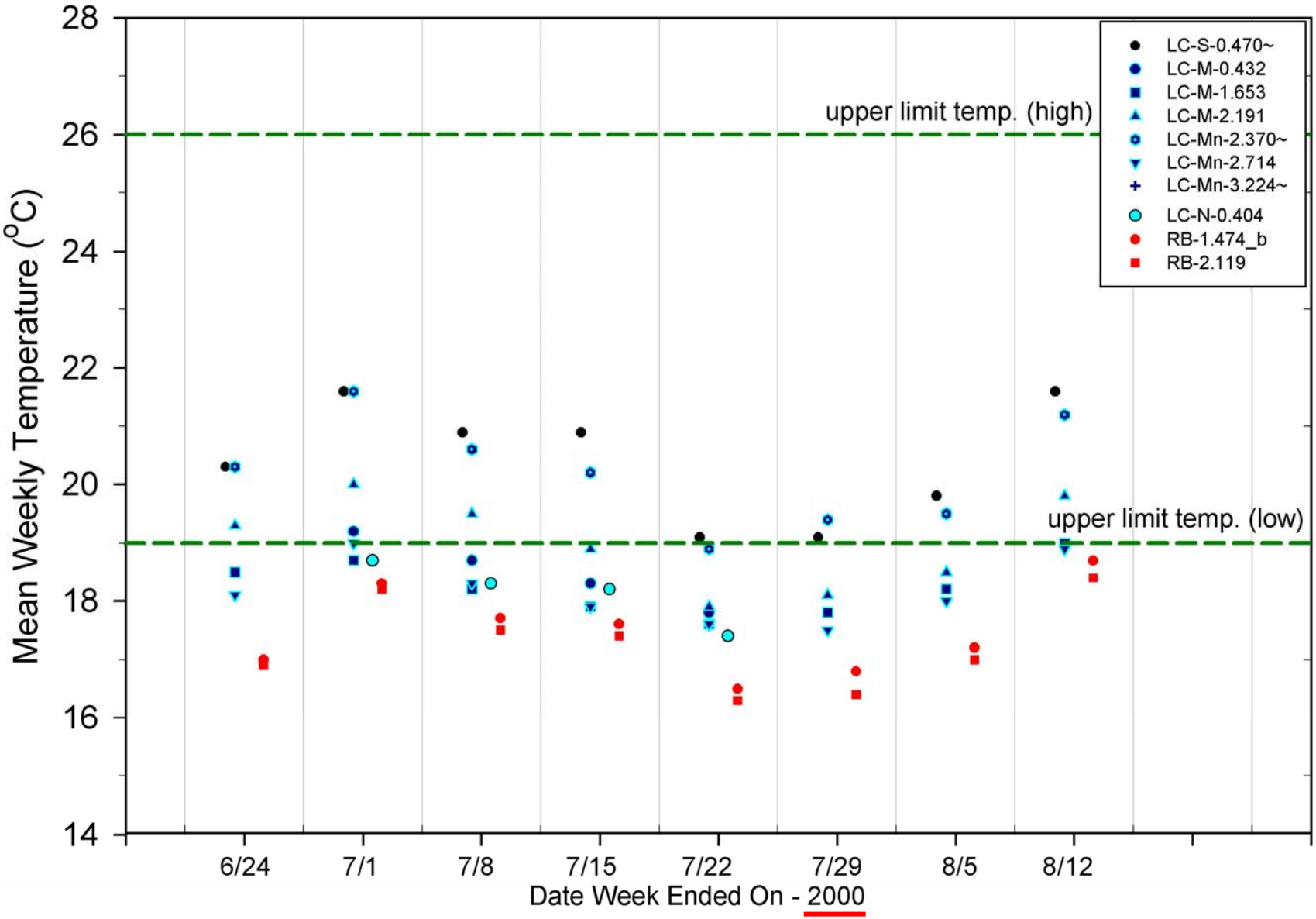


Figure 3.4.6. Mean weekly temperatures at various sites throughout the Long Creek and Red Brook watersheds. Note that symbols in this figure for 2000 do not exactly match those used in the 1999 mean temperature figure.

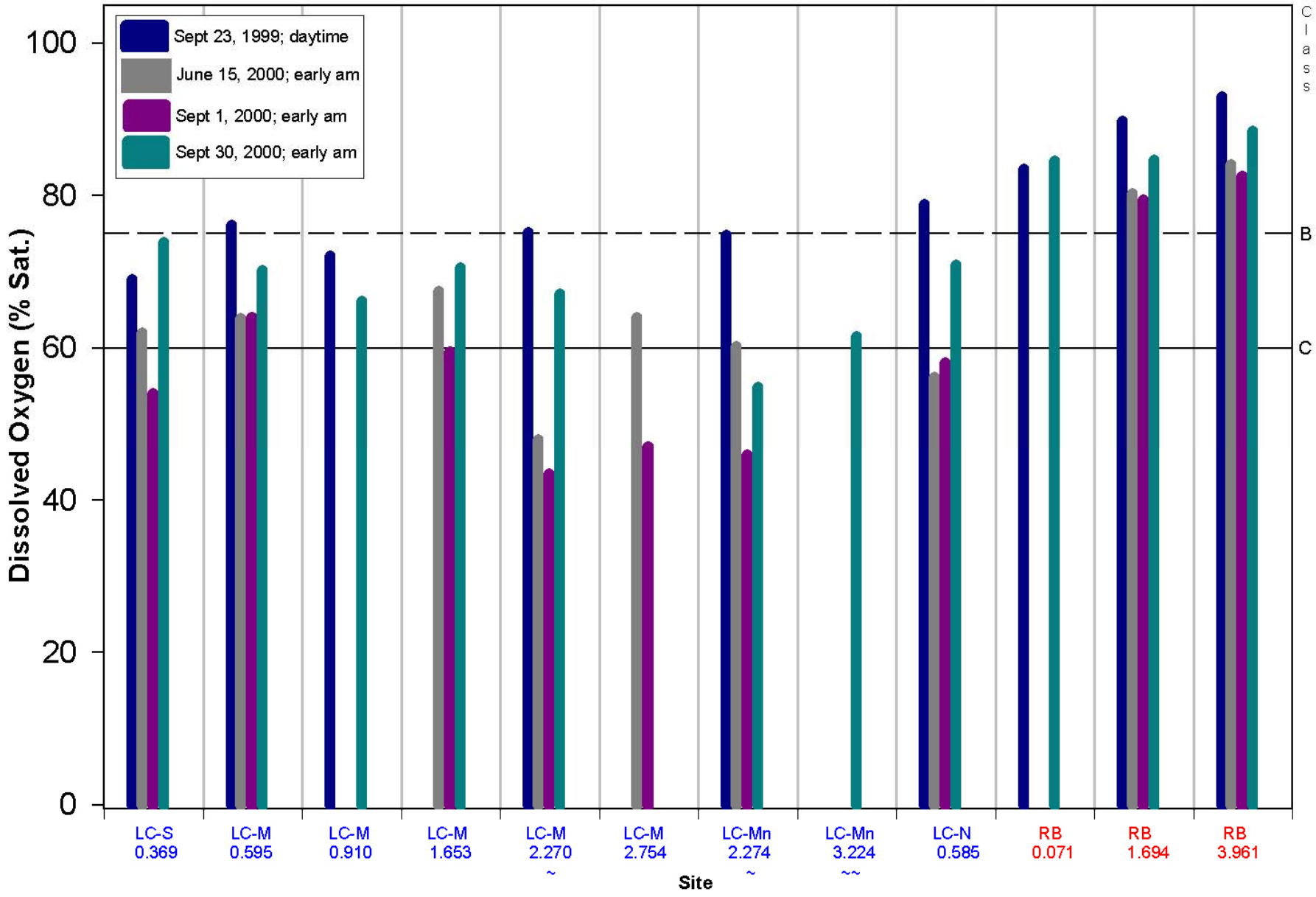
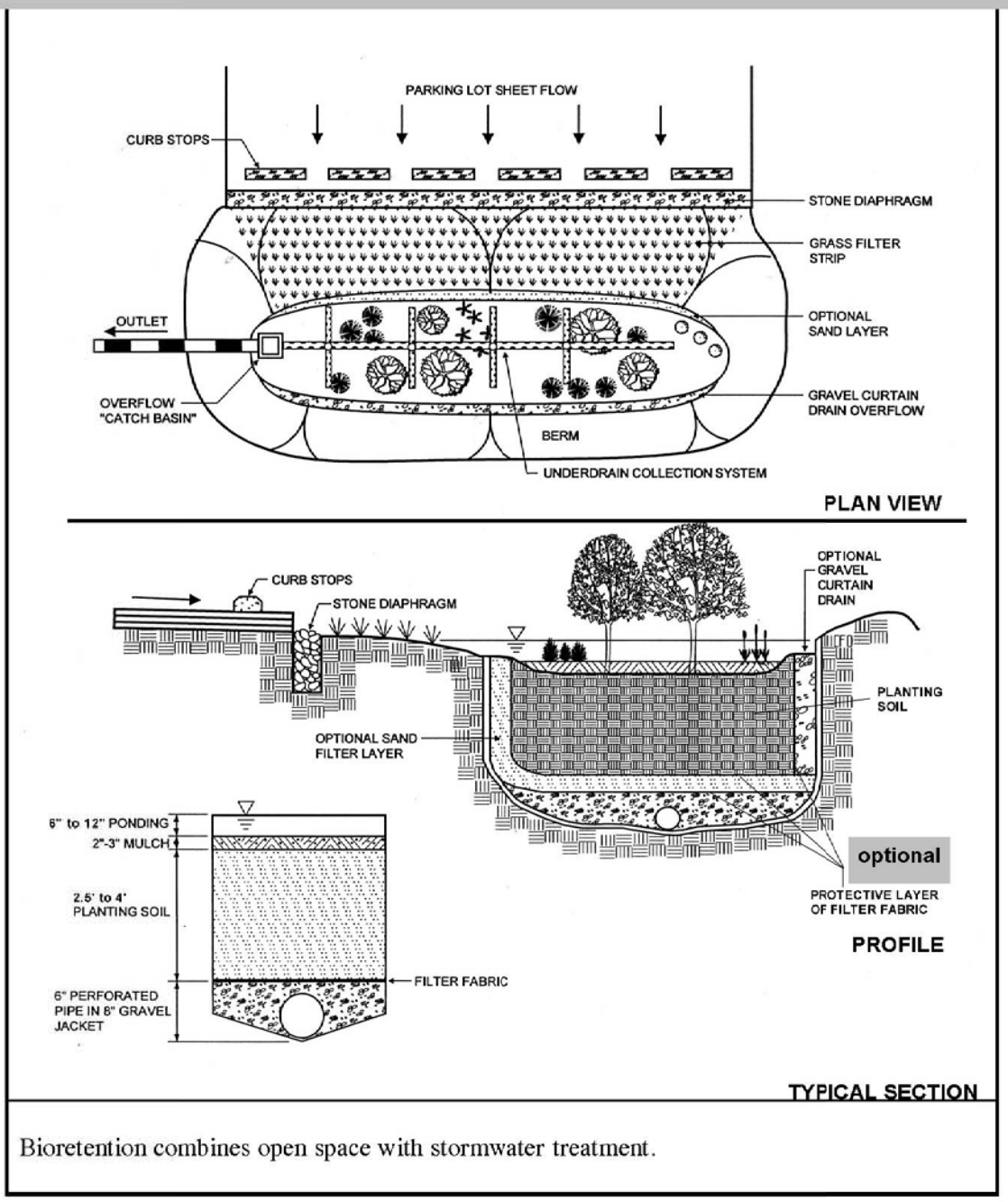

Sept 23, 1999; daytime
June 15, 2000; early am
Sept 1, 2000; early am
Sept 30, 2000; early am
Dissolved Oxygen (% Sat.)
100
80
60
40
20
0
Class
B
C
LC-S 0.369
LC-M 0.595
LC-M 0.910
LC-M 1.653
LC-M 2.270 ~
LC-M 2.754
LC-Mn 2.274 ~
LC-Mn 3.224 ~~
LC-N 0.585
RB 0.071
RB 1.694
RB 3.961
Site

Figure 2. Example of bioretention cell to give a rough idea of what the structures will look like. Note that the catch-basin/overflow drain is not pictured here. Other design specifications may also be different at Fairchild.



Bioretention combines open space with stormwater treatment.

This is a similar design to that proposed for Fairchild Semiconductor. The main difference is that at Fairchild, there may not be a gravel curtain drain. In its place, the bioretention swales will use existing stormwater catch basins (storm drains) as overflow devices.

From: 2000 Maryland Stormwater Design Manual; Maryland Department of the Environment; http://www.mde.state.md.us/Programs/WaterPrograms/SedimentandStormwater/stormwater_design/index.asp